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Walking

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PATENT SPECIFICATION

DIV. 62



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COMPLETE SPECIFICATION.

Toy Animal Figure Adapted to Carry Out Natural Walking Movements.

I, MIGUEL ENRIQUE NEBEL, of No. 18, rue des Pyramides, Paris, France, of French Nationality, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to a toy, which imitates in a natural manner the walking movements of a quadruped, and in which the mechanism proper is actuated by a pull being exerted on the body of the toy. Such toy figures are known, in which the movement of one pair of legs is transmitted to the other pair of legs by means of cranks and connecting rods. However this arrangement is open to the objection that a 'dead centre position' cannot be avoided in the mechanism, so that the legs arrive into a jamming position from which they can only be freed with difficulty, and in the case of a continual pull being exerted the figure will slip.

Toy figures are also known in which the movement of one pair of legs is transmitted to the other pair of legs by chains running over sprocket wheels. This arrangement is also not perfect owing to the fact that chain transmissions do not ensure smooth running owing to stretching of the chains. According to the invention the movement of the axles carrying the pairs of legs is positively transmitted from one axle to the other by means of bevel wheels keyed one on each axle and meshing with bevel wheels keyed on an axle arranged at right angles to the leg axles, so that a smooth running is ensured and the disturbing jamming is avoided.

An embodiment of the invention is illustrated in the accompanying drawing in which:

Fig. 1 shows the mechanism in side elevation.

Fig. 2 is a top plan view of Fig. 1.

The mechanism serving to effect the movements of the quadruped is accommodated in a frame *a*, which is inserted in a simple manner in the body of the toy and fixed therein by means of pins.

Each of the front and rear legs of the figure effects the same movement in alternating unison, and for this purpose two axles *b* are journaled in the frame and carry their ends mutually displaced pairs of cranks *c*. The leg members *d* are mounted freely movable on these cranks. Further, the movements of the leg members are limited with the aid of oscillating cranks *e* which merely carry out oscillating movements.

According to the invention the movements of the legs caused by the cranks are positively transmitted to the corresponding pair of legs by bevel wheels *f* mounted on the axles *b* and meshing with bevel wheels *g*, keyed on a longitudinal axle *i*. By introducing this bevel wheel gearing *f, g* the axles *b* are positively operatively interconnected, and the dead centre position in the mechanism occurring in the known toys of this type is avoided. The longitudinal axle *i* is journaled in arms *h* stamped from the frame cheeks.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A toy animal figure adapted to carry out natural walking movements with pairs of legs arranged on axles having mutually displaced cranks, characterized in that the axles (*b*) carrying the pairs of legs are positively operatively interconnected by the introduction of a bevel wheel gearing (*f, g*).

2. A toy animal as claimed in claim 1, characterized in that on the axles (*b*) carrying the pairs of legs bevel wheels (*f*) are mounted, which mesh with bevel wheels (*g*) arranged on a longitudinal axle (*i*).

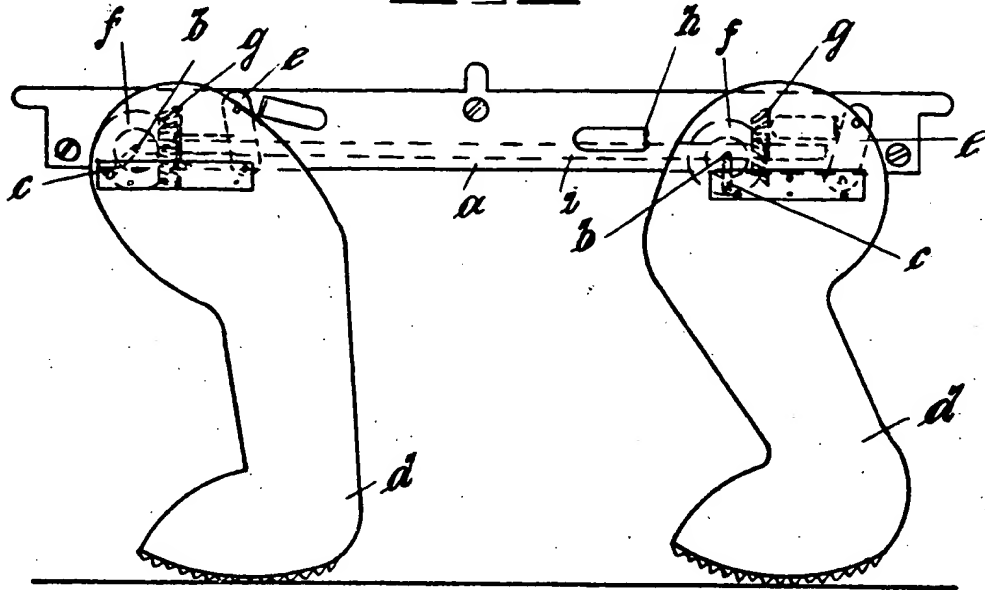
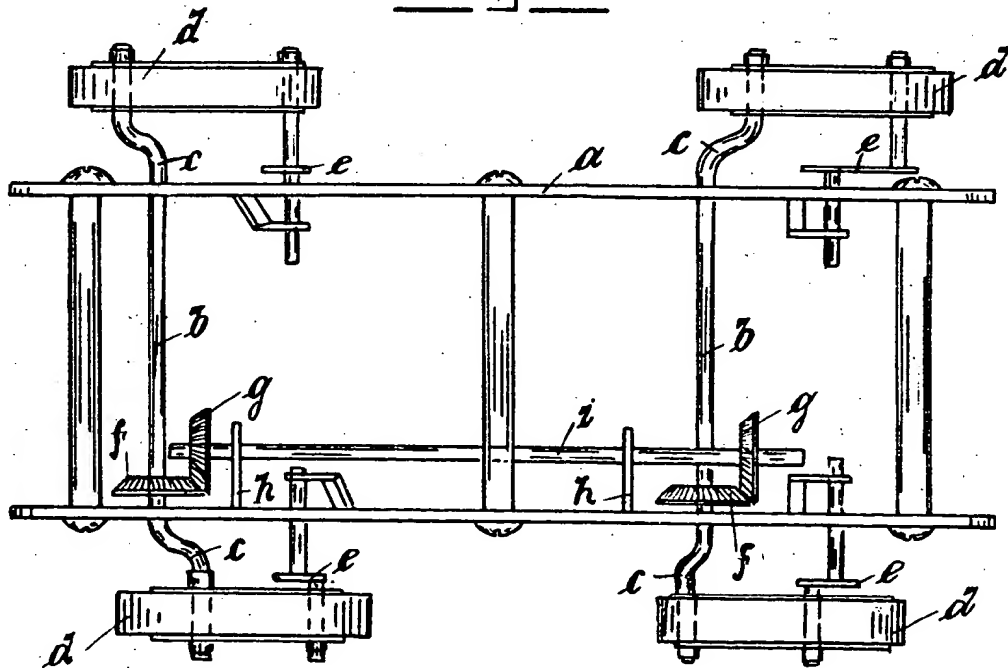
Dated this 31st day of August, 1931.

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Fig. 1Fig. 2

[This Drawing is a reproduction of the Original on a reduced scale.]

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